

Davenport (G)

[Reprinted from the AMERICAN GYNAECOLOGICAL AND OBSTETRICAL JOURNAL
for February, 1895.]

PUERPERAL CONVULSIONS.*

BY GEORGE DAVENPORT, M. D., EAST RANDOLPH, VERMONT.

This paper I have the honor to present you for discussion at this meeting, is in relation to a formidable disease which attacks the pregnant woman either at, or before, or after the termination of pregnancy. There is so much that might be said on this subject, its ætiology, its symptoms and its treatment, that it becomes positively embarrassing to decide at what point to begin. Consider if you please, the social conditions of the patient. Young, just starting in life. Everything to the eyes of the young people bears a roseate hue. They dwell in blissful ignorance of the dark lowering clouds which are settling nearer and nearer upon them until they are enveloped in the most appalling darkness, it may be of death itself. I say young because almost every case of puerperal convulsions occurs at the birth of the first child. In Dr. Collins' 30 cases 29 were first children. Dr. Merriman had 36 cases of which 28 were first labors. More than two thirds of Dr. Ramsbotham's cases were with first children and we know from our own observation that nearly all we have met with were first labors. In a thoughtless moment I promised to prepare a paper on puerperal eclampsia for this meeting; perhaps I did not realize the difficulties to be encountered in trying to harmonize the views of the different authors who have written upon this subject so as to make this a plain practical paper for our mutual benefit. Modern writers devote but little space to the discussion of this subject; they touch it gingerly. When the student has read all, both ancient and modern, he has very much to learn yet, at the bedside of the patient. Dr. Dewees describes three forms or grades of eclampsia, which to my mind, are both truthful and convenient and I propose in this short paper, to present to the Society for discussion, several cases illustrat-

* Read before the Vermont State Medical Society, Oct. 12, 1894.



ing the different phases of the disease which attacks, and attacks only, the parturient woman ; discarding theories and contenting myself with facts. These forms or varieties are 1st The Hysterical, not often seen in the country, 2d The Epileptic, altogether the most common to be met with of any form, and lastly, 3d The Apoplectic, the most fatal of all to the mother, and sometimes I am inclined to think every case fatal, absolutely no recoveries whatever.

My first case was observed on the 4th day of August, 1854. Mrs. D—— aged 16 years, with light complexion, blue eyes, short in stature, plump and well nourished. I never saw before or since a patient with so much œdema. The skin fairly glistened from the "soles of her feet to the crown of her head." I was called early in the morning and found her quite comfortable with slight labor pains becoming regular. Digital examination disclosed the os uteri soft and dilatable, a head presentation and no indication whatever of any trouble. She was in first-rate spirits, making sport of having a baby when so young. Everything seemed to be going on well until the os was dilated to the size of a quarter of a dollar, when without warning, sport and jollity gave way to shrieks and lamentations, from the first convulsion. All now was terror and confusion ; very soon after she had another spasm. In the meantime I procured a piece of soft wood to place between the molar teeth to prevent injury to the tongue. This is not difficult, for at the beginning of every fit the mouth is opened to its utmost extent. Mrs. D—— became entirely unconscious after the first convulsion and remained in that condition from Friday morning until the following Tuesday. Examination showed the labor to be going on normally and as expeditiously as could be expected in a primipara. We sent for the late Dr. C—— as counsel, and while the messenger was gone I took from the arm about 12 ounces of blood. Prof. Bartlett in his lectures used to say the obstetrician needed but little more in the practice of his art than the lancet and a bottle of morphine. Poor man ! how sad to think he died in ignorance of the use of carbolic acid and bichloride in the practice of midwifery ! A great difficulty was encountered in my efforts to find a vein,—bear in mind that I was but a tyro in the business,—on account of the prodigious amount of œdema. I could locate the vein only by the sense of touch with the point of my finger. Fortunately I struck it exactly right at a depth of at least one half of an inch. The labor was progressing rapidly and about the time Dr. C—— arrived I delivered her of a fine healthy female child. Dr. C—— immediately gave her one drachm of laudanum. Her tongue by this time had become so swollen from the in-

jury received at the first spasm that we could give her but little medicine afterward. The lips however were often wet with water. I asked the attendant nurses to keep an account of the number of convulsions and they did so until they numbered thirty-eight. On Sunday they lost the tally and they were not recorded after that. She must have been convulsed more than fifty times. The pulse all this time did not exceed 100 per minute and there was but a slight increase of temperature. On Monday a strong mustard paste was applied the entire length of the spine. She regained consciousness the next day Tuesday the 8th. Mrs. D—— was up and about the house as well as usual, when the baby was two weeks old. A prodigious quantity of urine was passed while the oedema remained. She made an uninterrupted recovery. I regard her case as typical of the epileptiform variety of puerperal convulsions. The number of the spasms was certainly extraordinary. No one of the older authors places the number at more than 18. Prof. King mentions the extreme as 30 or about that in any case. Just a word as to the management of such cases: When the head is pressing upon the perinæum and you think the child is about to be born, hold back the head until the fit has passed and the rigid muscles relax, then flex the limbs by the aid of assistants and you can readily deliver without injury to either mother or child.

Case 2.—Mrs. N—— primipara, blue eyes, well nourished. Was called to attend her on one of the coldest nights of a cold Vermont winter, found a head presentation, labor normal not protracted. After the uterus was emptied and before the soiled clothes could be removed she had a severe convulsion, soon followed by another. My first thought was to treat her as Mrs. D—— was treated. I accordingly bled her to the amount of perhaps 16 ounces and gave a full dose of morphine. The fits did not cease immediately but continued a few hours and she was convulsed altogether ten or twelve times. She was unconscious about twenty-four hours. There was very little oedema. The result was a perfect and rapid recovery. This proved to be of the same type as the first case but much less severe.

Case 3.—Mrs. S—— primipara, light blue eyes, a plump well-nourished person. This was a case unique in my experience. With the very first pain she fell to the floor in a convulsion. She became unconscious and remained in that condition for several hours after the birth of the child, but when the uterus was emptied the convulsions ceased. About eight o'clock the next morning I asked her how she

found herself. She replied: "Doctor I just as lief have a baby as not. They told me I should suffer great pain but I haven't had a particle of pain all through it and here is my baby." Every labor pain was accompanied by a spasm. Both mother and child made a speedy recovery. The treatment was bleeding and full doses of morphine. What was the pathology in this case? What destroyed the balance between the nervous and muscular systems? I consider this case a fine specimen of reflex action consequent upon an irritable condition of the uterine nerves. This case as well as the preceding happened in exceedingly cold weather. Dr. Churchill thinks convulsions more apt to occur in warm weather especially if there is much electricity in the air. According to my observation in this locality, the weather has nothing whatever to do with it.

Case 4.—Mrs. K—— primipara farmer's wife, blue eyes, tall, large boned, very strong and well nourished. In this case the convulsions did not come on until several hours after the labor was completed. The shoulders and arms were convulsed much more than the lower limbs. It is now about twenty-five years since Mrs. K—— had this illness but she has never been able to raise either hand to her head in a natural manner. She has given birth to several children but has had no more convulsions. She was bled moderately, and had anodynes and antispasmodics. Retention of urine was a marked feature in her case. The infusion or tincture of Digitalis as a diuretic and heart tonic is a favorite remedy with me in nearly all conditions incident to the parturient woman. This patient made a good recovery though rather slow. Was this a case of partial paralysis consequent upon a serous effusion on the brain?

Case 5.—Mrs. G—— primipara, light hair, blue eyes, medium size. After the child was born she was seized by a well developed convolution. I took blood as soon as I could and gave her a dose of morphine. Luckily she had no more spasms and she was unconscious but a short time and made a rapid recovery.

Case 6.—Mrs. B—— aged 19 years light complexion, blue eyes, found patient on my first visit suffering intense neuralgic pains in the back and also in the region of the uterus,—had passed two menstrual periods without show. One week previous in lifting a heavy weight had felt something give way and she has now a dark bloody discharge from the uterus. Digital examination disclosed the womb slightly enlarged, the neck abnormally elongated and small and to the touch it felt as if a string or small cord was drawn tightly around it at its junction with the body of the uterus. Mrs.

B—— had invariably suffered intensely at every catamenial period. Dry cups applied to the back, feet in hot water Chloral and the Bromides usually gave relief to the Dysmenorrhœa but now had little or no effect. May 8th a trifle easier continued treatment except the dry cups, 9th pains more severe and simulated labor pains. First convulsion to-day followed at intervals by several others, but no coma. She was bled ten or twelve ounces and inhaled chloroform with good effect,—she could not take morphine. Longer intervals between the fits, was obliged to discontinue Chloral and Bromides. Retention of urine, gave diuretics. The using of the catheter caused much pain. Urine strongly ammoniacal. There was not much change in the symptoms on the 10th 11th and the 12th. On the 13th I told the husband and the mother the uterus must be emptied of what we believed to be a foetus of two months, before relief could be obtained. The bloody discharge still continued and the abortion was a foregone conclusion. The os was found softer and more patulous but the constriction as bad as ever, nevertheless dilatation was attempted and after many trials (the patient being under the influence of Chloroform) the constriction was dilated sufficiently to allow the use of the placental forceps to extract the foetus, which being accomplished, the pains ceased and she had no more spasms and made a good recovery with no untoward symptoms. I told Mrs. B—— she would pass her next monthly period free from pain she was incredulous at the time but it proved true. Here was a bad case of Dysmenorrhœa very effectually cured. She has since borne two strong healthy children. We have in this patient a case of genuine puerperal eclampsia in an abortion at, or near the beginning of the third month of pregnancy. How will the theorists account for it? Were the brain and spinal marrow at fault or was it albuminuria? Was it not due rather to a peculiarly sensitive condition of the uterine nerves propagated through the whole spinal system? Writers discussing this disease seem to have no clear definite ideas as to its pathology. We all know to a certainty, eclamptic convulsions attack only the parturient woman. Ramsbotham says the most usual cause is pressure upon the brain. But he did not explain how that could happen in an abortion at three months. He also says the disease has often proved fatal without any organic lesion being evident on dissection and mentions several cases in which he believes the cause was irritation propagated immediately from the uterus to the brain. Authors are not very well agreed as to the remote or proximate cause. Some claim it to be the result of, and dependent upon albuminous urine: a sort of nephritis, while

others believe it closely allied to apoplexy and still others to an anaemic condition of the blood-vessels of the brain; or all of the above-mentioned pathological conditions mixed and mingled and finally resulting in eclampsia. According to my observation, the remote cause of eclampsia is an impregnated uterus and the exciting cause labor pains—an effort of Nature to relieve itself of what constitutes an offending body in a given case and why convulsions are present in one patient and absent in another no pathologist can explain. In this connection permit me to contribute my mite of what I deem to be facts concerning this disease. Every patient I have seen has had blue eyes or more often pale blue eyes, light colored hair and would be classed in temperament as nervo-lymphatic. The figure may be stout or thin, tall or short, but the temperament of eclamptic patients is always the same. For many years I have borne it in mind that when called to the bedside of a woman in labor and I saw that she had dark hair and dark eyes, I felt assured that whatever complications might arise she was safe from the always to be dreaded convulsions. Convulsions do not follow difficult and lingering labors, on the contrary all of my cases have been easy normal labors. Cazeau says the head almost always presents. In all my cases the head presented in first position of Baudelocque the labor was rapid and the "fits" did not appear to retard it a particle. That being the fact it would be unwise to rush for your instrument bag at the first onset of the convulsions. We may all see there is nothing malignant about eclamptic paroxysms. It is marvelous how quickly a patient recovers from an attack of it. She is entirely unconscious and consequently suffers no pain to reduce her strength. Writers generally overrate the mortality of convulsions. I believe that in the hysterical and epileptiform varieties, it is almost never fatal. In order to make this paper as complete as possible I will describe a fatal case,—the first and only one in my practice,—of the apoplectic variety.

Case 7.—Mrs. R——, mulatto, fine form, medium size, deep blue eyes, hair dark and curly, fourth child born after a comparatively easy labor. About thirty hours afterward had a "fit." I found her in a profound comatose state, stertorous breathing, no motion whatever in the muscles of the limbs, and no motion of any muscles except the respiratory; no frothing at the mouth and no more fits, thus she remained until death closed the scene. Mrs. R——'s husband was a white man. I discovered at the birth of the first child that she was not a physically perfect woman; the breasts had no nipples. The mammae were perfect in size and shape, but no appearance of any

nipples, the skin as smooth in one place as another. This woman was bled moderately, had counter-irritants, but died next day.

I think this was a case of genuine apoplexy and just as fatal in a lying-in woman as in any other person. The above are all my own cases, but I have seen as many more in consultation, but these are sufficient to show the different types or forms of the disease. The correct statement of the prognosis will depend upon our ability to discriminate between the epileptic and apoplectic forms of the convulsions, if of the former we may be tolerably certain the patient will recover, but if of the latter it is commonly fatal. Some authors mention a form of what is called serous apoplexy, an effusion of serum within the calvarium which may be absorbed and the patient recover. I am tempted to quote Dr. Churchill, who says "The entire and persistent insensibility, the absence of repeated paroxysms with accompanying symptoms, will at once enable us to distinguish apoplectic from hysterical or epileptic convulsions." In this form it is invariably fatal. We believe it is only a small percentage of all the cases which assume this fatal aspect.

In the treatment of puerperal eclampsia I believe the consensus of opinion (both of European and American physicians) at the present time, favors the abstraction of blood. With our present knowledge of the disease this opinion appears to be not only theoretically but practically correct. Usually the attacks come without warning, therefore it is well to be prepared and if possible bleed before she has the second spasm. The quantity to be taken will be subject to your own judgment in a given case and the sooner the blood is taken the better for the patient. From 8 to 16 ounces is amply sufficient. You do not bleed with the expectation of stopping the spasms immediately, but more as a precautionary measure. You see that by bleeding you diminish the volume of blood and by just so much lessening the danger of engorgement and also by so much diminishing the danger of converting an epileptic into the fatal apoplectic convolution. I would like to say, but I scarcely know how to express it, that our authors and instructors dwell too much upon trying to stop the convulsions, and have advocated very heroic treatment in bleeding and in the use of morphine and chloroform. Some of them instruct us to bleed 20 or 30 ounces, some from 40 to 50 and even to 60 ounces, and one author has bled a woman 70 ounces. It would be interesting to know the result in the latter case. In my opinion to practice the profuse blood-letting advocated by them would be unwise in the extreme. It is not necessary. The spasms do not kill the woman, if

they did my first case ought to have died within forty-eight hours after the first attack. It is well understood the parturient woman bears bleeding better than any other class of patients but that is no reason why she should be bled to death in order to stop the convulsions which are not essentially injuring her. The after treatment is chiefly morphine when it can be borne. The bromides and ordinary nervines may possibly be of some benefit. In the use of chloroform we must remember the woman is already under the influence of a powerful anæsthetic and is entirely unconscious therefore chloroform is to be used with great care lest the remedy be worse than the disease. In several instances I have observed a slight twitching of the muscles in the woman when she is "having a pain" to give an opiate immediately is the proper remedy. Another valuable remedy is to be noticed and that remedy is time. Do not hurry if you find the temperature about normal and the pulse ranging less than one hundred to the minute; your patient will recover. The opiate will soothe after a time the irritated nerves, but time is necessary. A great many things may be done for the patient, in the way of nursing which will tend to keep the attendants busy, an important point, which does no harm to the sufferer, and above all, "don't lose your head." A few words in regard to another mode of treatment advocated by Dr. C. C. P. Clarke, of Oswego, N. Y., in the July number of the *American Journal of Obstetrics*, 1880, in which he advises and recommends very large doses of morphine administered subcutaneously and claims superior success. He says he would give one and a half to two grains of morphine at one dose, have it weighed out by the apothecaries' scales, and adds if a man is timorous his first dose may be only one grain but the two-grain dose is the proper one. I mention this so that if any gentleman present has tried the large doses of morphine he may tell us what he thinks of this mode of treating puerperal eclampsia. I claim to have been successful in my treatment of this fell disease, so does Dr. Clarke and so do you perhaps, all of which goes to prove what I have before stated, that puerperal eclampsia is not so fatal a disease as the old writers taught and the profession have been accustomed to believe.